

PATENT
Attorney Docket No. 00-5016
Application Serial No. 09/772,759

REMARKS

This amendment is responsive to the final Office Action¹ dated November 18, 2004. Claims 1-51 were submitted for examination and all were rejected. No claims are amended. No claims are canceled. No claims are added. Thus claims 1-51 are pending in this application, with claims 1, 10, 21, 32 and 38 being independent. The specification is amended to correct a grammatical error. Favorable reconsideration and allowance are respectfully requested.

Claims 1-4, 8-11, 13-15, 19-22, 24-26, 30-32, 36-41 and 45-46 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,500,934 to Austin et al (hereinafter “Austin”); claims 5-7, 16-18, 27-29, 33-35, 42-44 and 47-51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Austin in view of U.S. Patent No. 6,597,377 B1 to MacPhail (hereinafter “MacPhail”); and claims 12 and 23 were rejected under Section 103(a) as being unpatentable over Austin in view of U.S. Patent No. 6,581,109 B1 to Fields et al (hereinafter “Fields”). These rejections are respectfully traversed for the following reasons.

As noted in a prior response, the present invention as recited in independent claim 1 relates to a method of presenting to a user a visual representation of a frame laid out in a matrix of blocks, with each block laid in a matrix of pins, the frame being resident at a central office of a telecommunications system. The method includes the steps of accessing a database of data as to a current condition of the frame, the data including data indicating which pins in the frame are currently in use and which pins in the frame are available for use. The method also includes the

¹ The Office Action may contain a number of statements characterizing the cited references and/or the claims which Applicants may not expressly identify herein. Regardless of whether or not any such statement is identified herein, Applicants do not automatically subscribe to, or acquiesce in, any such statement.

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step of displaying, based on the accessed data, a graphical representation of the frame. The graphical representation includes a visual indication of the current condition of the frame, including a visual indication of a plurality of pins currently in use and a plurality of pins available for use. The method further includes allowing a user to interact with the graphical representation to effect a mapping between available pins on the frame and telecommunications lines leading to and from the frame.

Independent claims 10 and 32 are directed to computer executable software code for host and client computers, respectively, that perform a method having the same features as those recited in claim 1. Independent claim 21 is directed to a server computer having similar features to those recited in claim 1, as well as additional features. Independent claim 38 is similar to claim 1, but is drafted in means-plus-function form.

To provide services to their customers, telecommunications companies (telcos or telephone companies) maintain a system of wire and fiberoptic land lines connecting the central offices (CO), at which switching cards are located, with their subscribers. The path between a subscriber's address and a CO includes several stages, such as a drop connecting the address to a serving terminal; a distribution connecting the serving terminal to a cross-box; and a feeder connecting the cross-box with the CO. The feeder enters the CO by connecting to a pin on a frame, which is connected to a port on a switching card by a jumper, either directly or through one or more intermediate pins and jumpers. The frame itself is a physical structure located within the CO, laid out in a matrix of blocks, each of which includes a matrix of pins.

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The mapping of ports to pins and pins to feeders is a relatively complex undertaking, and is performed by specially trained personnel, assisted by specialized software running on a mainframe computer. Because such existing systems are text-based, however, they do not offer the user the ability to readily visualize the frame in relation to the incoming and outgoing lines. In particular, existing systems fail to convey readily to the personnel a visual indication of which pins on the frame are in use, and which pins are available.

The present invention overcomes this drawback by displaying a graphical representation of the frame, which includes a visual indication of the current condition of the frame. The visual representation is based on accessed data, which includes data indicating which pins in the frame are currently in use, and which pins are available for use. And, in accordance with salient aspects of the present invention, the visual representation includes a visual indication of in-use pins and available pins, and the user is allowed to interface with the graphical representation to effect a mapping between available pins and telecommunications lines.

In other words, and augmenting the above-noted prior response discussion, claim 1 covers the situation of providing a GUI representation to personnel such as a wiring technician employed at a central office of a telephone or telecommunications company. The GUI representation allows the technician to pictorially view the status of connection-usage of a particular main distribution frame or a tie frame (see specification, at least page 8, for frame discussion) within that central office. This shows, among other things, available unused capacity and which specific unused pins are available. These frames are large physical structures as explained in Applicants' specification and depicted in the accompanying Figures. By employing

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the mapping capabilities of the software associated with the GUI presentation of the frame structure being viewed, the technician can obtain information by which he/she can readily and physically add wire jumpers to various pins in the frame from other pins, ports or electrical connection points on other telecommunication equipment located in that central office, to accommodate that particular CO's shifting telecommunication requirements.

In contrast, Austin has absolutely nothing to do with this subject matter. Austin is not related to a telecommunications system. Austin relates to computer networks, limited to data communications (see, e.g., Column 1, lines 18-25). Austin discloses a GUI display and control system for configuring and monitoring a complex computer system. Icons are utilized for selectively representing components of the complex system, the components having a configurable relationship with one another. Austin is silent with respect to a telecommunications company's central office main distribution or tie frame structure, since Austin has nothing to do with this subject. Austin, therefore, does not mention any pins on such frame structure, since it does not mention the frame structure. Therefore, Austin does not, and cannot, mention visually representing certain of those pins in any manner, much less representing those pins that are currently in use and other unused pins that are available. In view of the above, any attempted reading of claim 1 onto Austin is simply contorted and inaccurate.

For example, consider the very first attempt at such a reading on page 2, bottom of the Office Action. The Examiner suggests that Austin's column 5, lines 40-50 and column 11, lines 20-33, and accompanying Figs. disclose "accessing a database including data as to a current condition of the frame" (emphasis added). But, these sections of Austin are discussing the

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backplane of a personal computer which has absolutely nothing to do with the "frame" recited in Applicants' claim 1. Applicants' frame is not a computer, personal or otherwise - it is a passive structure for supporting the interconnection of telephone wires, as plainly shown in Applicant's Figs., e.g., Fig. 3 and clearly explained in Applicant's specification. There is no computing power inherent in Applicants' frame. Thus, Applicants' claimed frame is not disclosed or suggested by these selected sections of Austin, nor can it be found anyplace else in Austin.

Since Applicants' claimed "frame" is not disclosed or suggested in Austin, it follows that the visual representation of that frame, as claimed, is not disclosed or suggested by Austin. It also follows that the claimed matrix of blocks in which the frame is laid out is not disclosed or suggested by Austin. It then also follows that the claimed matrix of pins in which each block is laid out is not disclosed or suggested by Austin. And, of course, it also follows that the (non-existent) frame being resident at the claimed central office of a telecommunications system is also not disclosed or suggested by Austin. In fact, virtually nothing of substance in claim 1 is disclosed or suggested by Austin.

MPEP § 2131 says that to anticipate a claim, the reference must teach every element of the claim. It is clear that Austin does not meet this standard, as it doesn't teach the claim element discussed above and, in fact, does not teach any of the claim elements of claim 1. Therefore it is respectfully requested that the 35 U.S.C § 102(b) rejection of claim 1 be withdrawn and the claim allowed. Since independent claims 10, 21, 32 and 38 all contain recitations similar to that of claim 1, it is respectfully requested that the 35 U.S.C § 102(b) rejection of these claims also be withdrawn and these claims allowed.

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The two secondary references MacPhail and Fields do not cure any of the defects of Austin. Therefore, all dependent claims, namely claims 2-9 and 47 dependent from allowable claim 1, claims 11-20 and 48 dependent from allowable claim 10, claims 22-31 and 49 dependent from allowable claim 21, claims 33-37 and 50 dependent from allowable claim 32, and claims 39-46 and 51 dependent from allowable claim 38 are all allowable, at least for reasons based on their respective dependencies from allowable claims.

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CONCLUSION

In view of the foregoing remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application. This paper should be entered since the specification amendment is minor - no new matter is added - and no claim amendments are being made. Furthermore, this paper should be entered because that would narrow-down issues to be presented by way of appeal, should the Examiner not be sufficiently persuaded by these remarks.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 07-2347. If an extension of time under 37 C.F.R. § 1.136 not accounted for above is required, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

Joel Wall
Reg. No. 25,648



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c/o Christian R. Andersen
VERIZON CORPORATE SERVICES GROUP INC.
HQE03H14
600 Hidden Ridge Drive
Irving, TX 75038
(972) 718 - 4800